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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,493	01/17/2001	Arthur Charles Thomas Huston	50269-0039	7203

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EXAMINER

BAROT, BHARAT

ART UNIT PAPER NUMBER

2155

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/764,493	<b>Applicant(s)</b> THOMAS HUSTON ET AL.	
	<b>Examiner</b> Bharat N. Barot	<b>Art Unit</b> 2155	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-70 and 77-90 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-70 and 77-90 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

**RESPONSE TO APPEAL BRIEF**

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. Claims 1-70 and 77-90 remain for further examination. Applicants' arguments with respect to claims 1-70 and 77-90 filed on January 26, 2006 have been fully considered.

**The new grounds of rejection**

3. Applicants' arguments with respect to claims 1-70 and 77-90 filed on January 26, 2006 have been fully considered but they are deemed to be moot in view of the new grounds of rejection.

**Claim Rejections - 35 USC § 112, Second Paragraph**

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1-70 and 77-90 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite because all independent claims are unclear about how the claimed limitation of " in response to detecting that the second more recent version of the data is

available, and requesting the second more recent version of the data be supplied to the cache" is performed independent of any request for that data.

**Claim Rejections - 35 USC § 103(a)**

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-70 and 77-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keesey et al (U.S. Patent No. 6,622,167) in view of Zimowski (U.S. Patent No. 6,832,368).

8. As to claim 1, Keesey teaches a method for managing data stored in a cache comprising the computer implemented steps of: providing a first version of data in response to receiving a first request for data (figures 2-4; column 6 lines 1-45, Keesey discloses that a first version of a document requested is served to the client); detecting that a second more recent version of the data is available (column 7 lines 25-30, Keesey discloses that a request for more recent versions of the document are requested from the origin server, new versions could be pushed downstream to any DSS that has previously requested the document independently of the user request and inquire processes discussed in figures 4-6); in response to detecting requesting the second more recent versions of the data be supplied to the cache, and storing in the cache the second more recent version of the data (column 7 lines 1-30, Kqesey

discloses that a more recent version of the documents cached are requested and stored in the cache server, new versions could be pushed downstream to any DSS that has previously requested the document independently of the user request and inquiry processes discussed in figures 4-6); receiving a second request for the data; and in response to receiving the second request for the data, retrieving the second more recent version of the data from the cache, and providing the second more recent version of the data (see col. 7, Keesey discloses that responses for requests for a document include the recent version of the document).

However, Keesey does not explicitly disclose that detecting, independent of any request for the data, that a second more recent version of the data is available; in response to detecting, independent of any request for the data, that the second more recent version of the data is available, requesting the second more recent versions of the data be supplied to the cache, and storing in the cache the second more recent version of the data.

Zimowski explicitly disclose that detecting, independent of any request for the data, that a second more recent version of the data is available; in response to detecting, independent of any request for the data, that the second more recent version of the data is available, requesting the second more recent versions of the data be supplied to the cache, and storing in the cache the second more recent version of the data (see abstract and summary of the invention; figures 1 and 6; column 3 lines 1-10 and 48-57; and column 10 line 25 to column 11 line 16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Zimowski as stated above with the method of Keesey for managing data stored in a cache because it would have provided a novel new data version updating method and apparatus to manage the data stored in a cache, made update version of data available to a user; and improved control over the data version management apparatus.

9. As to claim 2, Keesey teaches the step of: replacing the first version of the data in the cache (column 7, Keesey discloses that the older version of data is replaced by the newer version of data). Keesey does not explicitly teach the limitation of deleting the first version of data. Keesey does teach that the first version of data is replaced by the second version of data (column 7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Keesey by specifying the replacement of the first version of data as deleting the first version of data since the same functionality of deleting the first version of data is achieved.

10. As to claim 3, Keesey teaches the steps of: storing, in a location other than the first cache, a request to requests for newer version of the data from the cache, and if the request for newer version of the data from the cache cannot be successfully processed, then after expiration of a specified period of time, retrieving from the location other than the first cache, the request for newer version of the data from the cache, and

processing again the request to for newer version of the data from the cache (columns 6-7, Keesey discloses that requests for newer versions of data are propagated upstream to the second cache server DSS and upon servicing the requests, the first version of data is replaced by the newer version of data). Keesey fails to teach the claimed limitation of a "request to delete the first version of data". Keesey does teach that requests for newer versions of data are propagated upstream to the second cache server DSS and upon servicing the requests, the first version of data is replaced by the newer version of data (columns 6-7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Keesey by specifying the requests for newer versions of data as the requests for deleting the first version of data since the same functionality of deleting the first version of data is achieved.

11. As to claim 4, Keesey teaches the step of: if the second more recent version of the data cannot be retrieved and stored in the cache, then after a specified period of time, attempting to again retrieve and store in the cache the second more recent version of the data (column 7, Keesey discloses that in active mode, the cache server makes attempts periodically to retrieve more recent versions of the documents cached).

12. As to claim 5, Keesey teaches the step of: if, after expiration of a specified period of time from a time when the second more recent version of the data is stored in the cache, no further requests for the second more recent version of the data are received,

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then deleting the second more recent version of the data from the cache (column 7 lines 55-65, Keesey disclose that after a certain time when documents are not requested they are removed from cache).

13. As to claim 6, Keesey teaches the steps of: storing, in a location other than the first cache, a request to retrieve and store in the cache the second more recent version of the data, and if the request to retrieve and store in the cache the second more recent version of the data cannot be processed successfully, then after queuing the request for a specified period of time, retrieving from the location other than the first cache, the request to retrieve and store in the cache the second more recent version of the data, and processing the request to retrieve and store in the cache the second more recent version of the data (column 7 lines 30-50, Keesey discloses that requests for recent versions of data are propagated upstream and queued for servicing). Keesey does not explicitly teach the claimed limitation of an "expiry" of a specified time period. Keesey teaches that requests for recent versions of data are propagated upstream and queued for servicing.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Keesey by specifying the queuing of requests for newer versions of data to the upstream servers and Internet as a specified "expiry period" since the same functionality of implementing a wait time is achieved.



14. As to claim 7, Keesey teaches the steps of: providing data that indicates whether the second more recent version of the data was successfully retrieved and stored in the cache (column 7 lines 30-45).

15. As to claim 8, Keesey teaches the steps of: causing a copy of the second more recent version of the data to be stored at the second cache (column 7, Keesey discloses that the recent version of the document is propagated to the lower level cache servers).

16. As to claim 9, Keesey teaches the step of: retrieving and storing in the cache the second more recent version of the data is performed in response to processing one or more requests from an entity. Keesey fails to teach the term "authorized entity".

However, "Official Notice" is taken that the concept and advantages of servicing requests from an authorized entity is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Keesey by specifying the clients as an authorized entity so that only certain users are served data requests.

17. As to claim 10, Keesey teaches the step of: generating, based upon a set of logging criteria, log data that indicates one or more activities of the cache (columns 6-7, Keesey discloses that usage counts are updated at the cache servers).

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18. As to claim 11, Keesey teaches that the set of logging criteria includes the presence of the first version of data provided (column 7). Keesey does not explicitly teach the limitation wherein logging criteria includes the "size" of data requested.

However, "Official Notice" is taken that the concept and advantages of using the size of the data requested as a logging criteria by the cache servers is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Keesey by specifying the size of the data as the logging criteria. One would be motivated to do so to take into consideration network bandwidth when moving large data files across the Intranet.

19. As to claim 12, Keesey teaches that the set of logging criteria includes presence of the first version of data. Keesey does not explicitly teach the limitation wherein logging criteria includes the amount of time required to provide data requested.

However, "Official Notice" is taken that the concept and advantages of using the an amount of time required to provide the data requested as a logging criteria by the cache servers is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Keesey by specifying the amount of time required to provide the data as the logging criteria. One would be motivated to do so to take into consideration network delay when moving large data files across the Intranet.

20. Claims 13-70 do not teach or define any new limitations than above claims 1-12; therefore, the claims 13-70 are rejected for similar reasons.

21. Claims 77-90 are rejected for similar reasons as the rejected claims 1-12 above.

Regarding claims 77-78, Keesey does not explicitly teach the limitation of a "traffic server". Keesey does teach that document shadowing servers DSS are used as intermediaries between the client and the source server (figure 2; and columns 6-7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Keesey by specifying the document shadowing servers DSS as traffic servers since the same functionality of implementing an intermediary caching system is achieved.

Regarding claims 79-90, Keesey does not explicitly teach the claimed limitation of a "differencing mechanism". Keesey does teach a document shadowing program 34 configures the DSS to implement the functionality of the claims above (columns 5-7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Keesey by specifying the document shadowing program 34 as the differencing mechanism since the same functionality of requesting newer versions of documents independent of requests for the documents is achieved.

**Response to Arguments**

22. Applicant's arguments filed January 26, 2006 have been fully considered but they are not persuasive. In the remarks, the applicant argues in substance that the Keesey reference does not teach "detecting, independent of any request for the data, that a second more recent version of the data is available, in response to detecting, independent of any request for the data, that the second more recent version of the data is available, requesting the second more recent versions of the data be supplied to the cache, and storing in the cache the second more recent version of the data.

Applicant's arguments have been fully considered. The examiner has attempted to answer (response) to the remarks (arguments) in the body of the Office action.

**Contact Information**

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bharat Barot** whose Telephone Number is **(571) 272-3979**. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM. Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number **(571) 273-8300**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Saleh Najjar**, can be reached at **(571) 272-4006**.

Patent Examiner Bharat Barot

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April 07, 2005

  
**BHARAT BAROT**  
**PRIMARY EXAMINER**